



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,071	08/01/2005	Oleksandr V Vladimirov	KAP-105-A	2769
7590	09/25/2008		EXAMINER	
Irving M Weiner Weiner & Burt P O Box 186 635 N US-23 Harrisville, MI 48740				ROY, SIKHA
		ART UNIT	PAPER NUMBER	
		2879		
			MAIL DATE	DELIVERY MODE
			09/25/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/534,071	VLADIMIROV ET AL.	
	Examiner	Art Unit	
	Sikha Roy	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 15 June 2008.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-5 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-5 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____.	6) <input type="checkbox"/> Other: _____ .

DETAILED ACTION

The Response, filed on June 15, 2008 has been entered and acknowledged by the Examiner.

Claims 1-5 are pending in the instant application.

Claim Objections

Claim 1 is objected to because of the following informalities:

Claim 1 line 4 'a glass capsule' should be --the glass capsule--.

Claim 1 line 7 'the tube' refers to exhaust tube. It should be replaced by ---lamp tube--- as the metal container is facing the working area of lamp tube.

Appropriate corrections are required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,917,276 to Traksel et al., and further in view of USPN 4,335,326 to Latassa et al.

Regarding claim 1 Traksel discloses (Figs. 1, 2,3A col. 2 lines 47-65, col.4 lines 40-67, col. 5 lines 15-32) a method of introducing mercury into an internal spacer of an electron lamp comprising steps of using a glass capsule 20 containing mercury mounted in an exhaust tube 12 (projecting portion which serves as an exhaust tube) in close proximity to an exposed electrode of the lamp in such a manner the capsule

containing mercury is facing the working area of the lamp tube 10 and after the discharge vessel 10 had been evacuated through the exhaust tube 12 and had been provided with filling of rare gas, the exhaust tube with capsule is subjected to the local effect of high power electromagnetic radiation, thereby causing softening of the glass of the capsule and to form an opening thereby resulting in filling up the inner space of the lamp. Traksel does not expressly disclose separating the exhaust tube portion containing the capsule from the evacuation unit and evaporation of liquid mercury, it is the position of the Examiner that once the lamp tube has been evacuated and filled with rare filling gas it would be obvious to one of ordinary skill in the art to remove the evacuation unit and when the capsule is heated by electromagnetic (infrared) radiation mercury inside would evaporate resulting in a directional flow of mercury vapor. Traksel further discloses capsule and the exhaust tube can be removed after it has served the purpose of dispensing mercury.

Traksel does not exemplify glass capsule disposed within a metal container provided with at least one opening whose diameter is much less than the diameter of the glass capsule and rupturing of the glass capsule when heated.

Latassa in same field of endeavor discloses (Fig. 2) a glass capsule 26 containing liquid mercury disposed within a metal container 36, the container being provided with at least one opening 34 whose diameter is much less than that of the glass capsule and the container with the capsule when heated the capsule is ruptured allowing the escape of mercury through the opening. Latassa discloses this mercury

dispenser is easier to handle and protects the hermetic seal of the glass capsule containing mercury during mounting and lamp processing.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the glass capsule of Traksel by the glass capsule disposed within a metal container provided with at least one opening whose diameter is much less than the diameter of the glass capsule such that when heated the capsule is ruptured with escape of mercury through the opening as taught by Latassa for easier handling of the dispenser and protecting the hermetic seal of the glass capsule containing mercury during mounting and lamp processing..

Regarding claim 2 Traksel discloses (col. 5 lines 20-22) the capsule contains about 3 mg. of mercury.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,917,276 to Traksel et al., USPN 4,335,326 to Latassa et al. and further in view of USPN 4,056,7560 to Latassa (referred as '750).

Regarding claim 3 Traksel is silent regarding glass capsule filled up with mercury using vacuum method.

Latassa ('750) discloses (Fig. 2 col. 2 lines 7,8) the capsule 6 with uncrimped portion 9 containing mercury is filled by vacuum.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to modify the method of filling mercury in the glass capsule of Traksel and Latassa by vacuum method as suggested by Latassa ('750) since applying a known

technique to a known device to obtain predictable result is considered to be within the skill of the art.

Regarding claim 4 Traksel discloses local electromagnetic radiation is provided with a power of about 2kw. Traksel does not exemplify the radiation provided by high frequency induction heating unit. Latassa ('750) discloses mercury can be released by rupturing the container by RF (high frequency) induction heating. Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to use the high frequency induction heating method of local heating of the glass capsule of Traksel and Latassa since applying a known technique to a known device to obtain predictable result is considered to be within the skill of the art.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,917,276 to Traksel et al., USPN 4,335,326 to Latassa et al. and further in view of USPN 6,034,485 to Parra.

Regarding claim 5 Traksel and Latassa disclose the claimed invention except for the lamp being a neon tube. Parra discloses fluorescent tubes of various shapes and sizes, mercury vapor lamps, neon tubes are all gas discharge lamps used as efficient less expensive light source in conventional industrial, commercial fields. Therefore it would have been obvious to one having ordinary skill in the art to use the method of introducing mercury in a neon tube since the mercury discharge lamp of Traksel and neon tubes are considered to be equivalent for their use as light source as shown by Parra.

Response to Arguments

Applicant's arguments with respect to claim1 have been considered but are moot in view of the new ground(s) of rejection.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikha Roy whose telephone number is (571) 272-2463. The examiner can normally be reached on Monday-Friday 8:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sikha Roy/
Primary Examiner, Art Unit 2879